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EXAMINER

ZHONG, CHAD

ART UNIT PAPER NUMBER

2154

6

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/783,660

Applicant(s)

MANSOUR ET AL.

Examiner

Chad Zhong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

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DETAILED ACTION

1. Claims 1-64 are presented for examination.
2. It is noted that although the present application does contain line numbers in specification and claims, the line numbers in the claims do not correspond to the preferred format. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the Examiner and Applicant all future correspondence should include the recommended line numbering.
3. The disclosure is objected to because of the following informalities:
The use of the trademark Microsoft, Yahoo, Hotmail, Citrix, X-Windows, PC Anywhere, Windows 2000 server, IBM, Motorola among others have been noted in this application (pg 3, 5; pg 11, line 16-17; pg 12, line 31; pg 13, lines 17-21; pg 15, lines 21-22; pg 18, lines 15-16; pg 24, line 12; pg 25, lines 12, lines 15-16). It should be capitalized wherever it appears and be accompanied by the generic terminology. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371 (c) of this title before the invention thereof by the applicant for patent.
5. Claims 1-11, 13-17, 19-28, 30-64 are rejected under 35 U.S.C. 102(e) as being anticipated by Simonoff et al. (hereinafter Simonoff), US 6,327,608.
6. As per claim 1, Simonoff teaches a data processing method comprising:

generating, with a client device, a user interface (UI) for a server-based application according to a UI format that is based upon a number of device capabilities for said client device (Col. 7, lines 23-30; Col. 9, lines 33-50; Col. 11, lines 60-67);

transmitting a number of source data items related to said server-based application from said UI server to said client device (Col. 9, lines 33-50); and

populating at least one native UI control used by said UI with said number of source data items (Col. 9, lines 33-50; Col. 14, lines 33-41; Col. 16, lines 40-49).

7. As per claim 2, Simonoff teaches a method according to claim 1, further comprising the step of formatting characteristics of said UI based upon a number of device capabilities for said client device. (Col. 11, lines 64-67; Col. 9, lines 33-50).

8. As per claim 3, Simonoff teaches a method according to claim 1, wherein said at least one native UI control is associated with an operating system for said client device (Col. 11, lines 64-67).

9. As per claim 4, Simonoff teaches a method according to claim 1, further comprising the step of executing, at said UI server, said server-based application to manipulate source data items for presentment at said client device (Col. 9, lines 33-50).

10. As per claim 5, Simonoff teaches a method according to claim 1, further comprising the steps of:

generating an action request in response to a manipulation of said UI by a user of said client device (Col. 12, lines 1-13); and

updating said UI in response to said action request (Col. 12, lines 1-13).

11. As per claim 6, Simonoff teaches a method according to claim 1, further comprising the

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steps of:

performing an offline action by said client device while said client device operates in a disconnected from said UI server (Col. 10, lines 23-30);

subsequently establishing a session between said client device and a UI server (Col. 9, lines 32-50); and

thereafter transmitting, from said client device to said UI server, a command indicative of said offline action (Col. 9, lines 32-50; Col. 10, lines 34-48).

12. As per claim 7, Simonoff teaches a method according to claim 6, further comprising the step of executing said command by said server-based application (Col. 9, lines 32-50).

13. As per claim 8, Simonoff teaches a method according to claim 6, wherein:

said offline action modifies at least one of said source data items at said client device (Col. 10, lines 23-30); and

said method further comprises the step of updating a corresponding number of source data items maintained by said UI server to reflect the modification of said source data items (Col. 9, lines 33-50).

14. As per claim 9, Simonoff teaches a method according to claim 1, further comprising the step of maintaining a shadow cache at said UI server, said shadow cache including a list of source data items transmitted from said UI server to said client device (Col. 8, lines 11-19; Col. 9, lines 33-50).

15. As per claim 10, Simonoff teaches a method according to claim 1, further comprising the step of saving said number of source data items in a client cache resident at said client device (Col. 14, lines 44-56).

16. As per claim 11, Simonoff teaches a method according to claim 5, further comprising the

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step of removing client cache items to accommodate said number of source data items (Col. 13, lines 35-44; Col. 14, lines 44-56).

17. As per claim 13, Simonoff teaches a method according to claim 1, further comprising the steps of:

 sending a client action command related to said server-based application from said UI server to said client device; and

 executing said client action command by said client device (Col. 9, lines 33-50).

18. As per claim 14, Simonoff teaches a method according to claim 1, wherein said number of source data items received during said receiving step represent a portion of a larger amount of related data available at a UI server (Col. 16, lines 40-49; Col. 14, lines 44-56; Col. 9, lines 33-50; Col. 10, lines 23-30).

19. As per claim 15, Simonoff teaches a method according to claim 14, wherein:

 said larger amount of related data comprises a list of items; and said number of source data items represents a subset of said list of items (Col. 16, lines 40-49).

20. As per claim 16, Simonoff teaches a method according to claim 14, wherein:

 said larger amount of related data comprises a document (Col. 9, lines 33-50); and

 said number of source data items represents a portion of said document (Col. 9, lines 33-50; Col. 16, lines 40-49).

21. As per claim 17, Simonoff teaches a method according to claim 14, wherein:

 said larger amount of related data comprises an image; and

 said number of source data items represents a portion of said image (Col. 16, lines 40-49).

22. As per claim 19, Simonoff teaches a data processing method comprising:

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defining a user interface (UI) form in response to a number of device capabilities for a client device (Col. 9, lines 33-50);
storing said UI form locally at said client device (Col. 10, lines 23-30);
saving a number of source data items locally at said client device (Col. 10, lines 23-30), said number of source data items being related to a server-based application executed by a UI server (Col. 9, lines 33-50; Col. 12, lines 1-13); and
populating said UI form with said number of source data items (Col. 9, lines 33-50).

23. As per claim 20, Simonoff teaches a method according to claim 19, further comprising the step of transmitting said number of source data items from said UI server to said client device (Col. 9, lines 33-50).

24. As per claim 21, Simonoff teaches a method according to claim 19, wherein said defining step is performed by said UI server in response to a device identifier obtained from said client device (Col. 9, lines 8-25).

25. As per claim 22, Simonoff teaches a method according to claim 19, further comprising the step of executing, at said UI server, said server-based application to manipulate source data items for presentment at said client device (Col. 12, lines 1-13).

26. As per claim 23, Claim 23 is rejected for the same reasons as rejection to claim 5 above.

27. As per claims 24-28, Claims 24-28 are rejected for the same reasons as rejection to claims 6-8, and 10-11 respectively.

28. As per claim 30, Simonoff teaches a method according to claim 27, further comprising the steps of:

updating said UI form in response to a manipulation of a display control rendered by said client

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device;

requesting an additional number of source data items from said UI server if said manipulation of said display control triggers a data request command; and

replacing source data items saved in said client cache with said additional number of source data items (Col. 12, lines 1-13).

29. As per claim 31, Simonoff teaches a method according to claim 27, further comprising the steps of:

updating said UI form in response to a manipulation of a display control rendered by said client device;

retrieving additional source data items from said client cache in response to said manipulation of said display control; and

displaying said additional source data items in said UI form (Col. 12, lines 1-13, lines 23-39).

30. As per claim 32, Claim 32 is rejected for the same reasons as rejection to claim 13 above.

31. As per claim 33, Simonoff teaches a method according to claim 19, wherein said defining step defines said UI form based upon said server-based application (Col. 9, lines 33-50).

32. As per claim 34, Simonoff teaches a method according to claim 19, wherein said defining step defines said UI form with at least one native UI control stored locally at said client device (Col. 10, lines 23-30; Col. 12, lines 23-39).

33. As per claim 35, Simonoff teaches a method according to claim 19, wherein:

said UI server has access to a total number of source data items associated with said UI form (Col. 9, lines 33-50); and

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said number of source data items saved during said saving step represents a portion of said total number of source data items (this section of the claim 35 is rejected for the same reasons as rejection to claim 14 above).

34. As per claim 36, Simonoff teaches a method according to claim 35, further comprising the steps of:

said UI server receiving a request for additional source data items (Col. 12, lines 1-13; Col. 9, lines 33-50); and

said UI server transmitting a subsequent portion of said total number of source data items to said client device in response to said request (Col. 12, lines 1-13; Col. 9, lines 33-50).

35. As per claim 37, Simonoff teaches a method according to claim 36, wherein said UI server receives said request from said client device in response to a manipulation of said UI form (Col. 12, lines 1-13).

36. As per claim 38, Simonoff teaches a data processing method comprising:

executing, at a user interface (UI) server, a server-based application configured to manipulate source data items for presentment at a client device;

displaying a UI form at said client device, said UI form being capable of presenting data items to a user of said client device;

generating an action request in response to a manipulation of said UI form by a user of said client device; and

updating said UI form in response to said action request (Col. 9, lines 33-50).

37. As per claim 39, Simonoff teaches a method according to claim 38, further comprising the steps of:

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sending said action request from said client device to said UI server; and

processing said action request by said UI server (Col. 9, lines 33-50; Col. 12, lines 1-13).

38. As per claim 40, Simonoff teaches a method according to claim 38, further comprising the step of transmitting a number of source data items related to said server-based application from said UI server to said client device, said transmitting step being performed in response to said action request (Col. 9, lines 33-50).

39. As per claim 41, Claim 41 is rejected for the same reasons as rejection to claim 14 above.

40. As per claim 42, Simonoff teaches a method according to claim 41, further comprising the steps of:

requesting, from said UI server, said number of source data items in response to an initial manipulation of said UI form; and

subsequently requesting, from said UI server, an additional number of source data items in response to a further manipulation of said UI form;

wherein said additional number of source data items represent a second portion of said larger amount of related data (Col. 9, lines 33-50; Col. 12, lines 1-40).

41. As per claim 43, Simonoff teaches a method according to claim 38, further comprising the steps of:

said UI server receiving information representing new, deleted, or modified data items; and

said UI server transmitting, to said client device, push data representing said new, deleted, or modified source data items (Col. 9, lines 33-50).

42. As per claim 44, Simonoff teaches A method according to claim 43, further comprising the step of said UI server sending, to said client device, a push notification corresponding to said push data (Col. 12, lines 1-45).

43. As per claim 45, Simonoff teaches a data processing method comprising:

generating a user interface (UI) form definition for a server-based application based upon a number of device capabilities for a client device;

instructing said client device to render a UI form corresponding to said UI form definition;

rendering said UI form with at least one native UI control associated with an operating system for said client device;

transmitting a number of data items from a UI server to said client device, said number of data items being related to said server-based application; and

displaying said number of data items in said at least one native UI control (Col. 9, lines 33-50; Col. 12, lines 1-40).

44. As per claim 46, Simonoff teaches a method according to claim 45, further comprising the step of specifying a command script corresponding to a manipulation of a UI control contained in said UI form, said command script being configured for execution by said client device (Col. 9, lines 33-50).

45. As per claim 47, Simonoff teaches a method according to claim 46, further comprising the step of executing, by said client device, said command script in response to the manipulation of said UI control at said client device (Col. 9, lines 33-50; Col. 12, lines 1-13).

46. As per claim 48, Simonoff teaches a method according to claim 45, further comprising the step of saving said number of data items in a client cache resident at said client device (Col. 14, lines 44-56).

47. As per claim 49, Simonoff teaches a method according to claim 48, further comprising the step of retrieving said number of data items from said client cache prior to said displaying step (Col. 14, lines 44-56; Col. 12, lines 1-40).

48. As per claim 50, Simonoff teaches a method according to claim 45, further comprising the step of requesting, from said UI server, said number of data items in response to a manipulation of said at least one native UI control (Col. 12, lines 1-13).

49. As per claim 51, Claim 51 is rejected for the same reasons as rejection to claim 14 above.

50. As per claim 52, Claim 52 is rejected for the same reasons as rejection to claim 42 above.

51. As per claim 53, Simonoff teaches a distributed user interface (UI) architecture comprising:

a client device architecture comprising a UI module configured to generate a UI for a server-based application according to a UI form definition, and to populate at least one native UI control used by said UI with source data items; and

a UI server architecture comprising a server send module configured to transmit, to said client device architecture, a number of source data items related to said server-based application;

wherein said UI module (Col. 15, lines 17-27) populates said UI control with said number of source data items (Col. 9, lines 33-50; Col. 12, lines 1-13).

52. As per claim 54, Simonoff teaches a distributed UI architecture according to claim 53, wherein said UI server architecture further comprises a UI formatting module that generates said UI form definition based upon a number of device capabilities for a client device that includes said client device architecture (Col. 9, lines 33-50).

53. As per claim 55, Simonoff teaches a distributed UI architecture according to claim 53, wherein said client device architecture further comprises a client cache configured to store said number of source data items (Col. 14, lines 44-56).

54. As per claim 56, Simonoff teaches A distributed UI architecture according to claim 55, wherein

said UI server architecture further comprises a shadow cache configured to store data representing the contents of said client cache (Col. 8, lines 15-20).

55. As per claim 57, Simonoff teaches a distributed UI architecture according to claim 55, wherein said client cache is further configured to store said UI form definition (Col. 12, lines 44-56).

56. As per claim 58, Claim 58 is rejected for the same reasons as rejection to claim 14 above.

57. As per claim 59, Simonoff teaches a distributed user interface (UI) system comprising:

- a client device having a client processing architecture and

- a client communication element configured to communicate with a compatible communication element; and

- a UI server having a server processing architecture and a server communication element configured to communicate with said client communication element;

- said client processing architecture being configured to:

- transmit a device identifier to said UI server;

- generate a UI form in accordance with a UI form definition; and

- populate at least one native UI control with a number of source data items associated with a server-based application;

- said server processing architecture being configured to:

- receive said device identifier from said client device;

- identify said UI form definition in response to said device identifier; and

- send said number of source data items to said client device for rendering with said UI form (Col. 9, lines 33-50, lines 8-25; Col. 12, lines 1-40;).

58. As per claim 60, Simonoff teaches a system according to claim 59, wherein:

said client device includes a number of device capabilities related to UI characteristics; and
said server processing architecture is further configured to generate said UI form definition based upon said number of device capabilities (Col. 9, lines 33-50; Col. 11, lines 60-67).

59. As per claim 61, Simonoff teaches a system according to claim 59, wherein said client device further comprises a client cache configured to store said number of source data items (Col. 14, lines 46-56).

60. As per claim 62, Simonoff teaches a system according to claim 59, wherein said client device further comprises a client cache configured to store said UI form definition (Col. 14, lines 46-56; Col. 12, lines 1-40; Col. 10, lines 23-30).

61. As per claim 63, Claim 63 is rejected for the same reasons as rejection to claim 14 above.

62. As per claim 64, Claim 64 is rejected for the same reasons as rejection to claim 42 above.

Claim Rejections - 35 USC § 103

63. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

64. Claims 12, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simonoff et al. (hereinafter Simonoff), US 6,078,322, in view of Dillingham, US 6,327,608.

65. As per claim 12, Simonoff does not teach a method according to claim 11, wherein said removing step selectively removes said client cache items according to a hierarchical preference

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scheme.

66. Dillingham teaches a method according to claim 11, wherein said removing step selectively removes said client cache items according to a hierarchical preference scheme (Col. 4, lines 25-37; Col. 3, lines 60-61; Col. 8, lines 13-21; Col. 7, lines 30-37).

67. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Simonoff and Dillingham because they both dealing with server sending client scripts for client side generation of user interface (UI). Furthermore, the teaching of Dillingham to allow wherein said removing step selectively removes said client cache items according to a hierarchical preference scheme would improve the latency and communication costs for Simonoff's system by sorting out the stored cache items in a hierarchy fashion, thus improving speed of update by making update of such a cache in accordance with the sorted list.

68. As per claim 29, Claim 29 is rejected for the same reasons as rejection to claim 12 above.

69. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Simonoff et al. (hereinafter Simonoff), US 6,078,322, in view of 'Official Notice'.

70. As per claim 18, Simonoff does not teach a method according to claim 14, wherein:
said larger amount of related data comprises a body of text; and
said number of source data items represents a portion of said body of text. However 'Official Notice' is taken by the Examiner that a text file is notoriously well known as a type of file. It would have been obvious to have used a text file for the purpose of the current invention, because doing so would be less burdening for the individual units, through the usage of text file in place of image or a document and the like, the user now have the option of manipulating a portion of the text file thereby improving processing efficiency and speed on the client side, thus realizing a

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thin client network.

Conclusion

71. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents and publications are cited to further show the state of the art with respect to

“PLATFORM-INDEPENDENT DISTRIBUTED USER INTERFACE CLIENT ARCHITECTURE”.

- i. US 5818447 Wolf et al.
- ii. US 2002/0152244 Dean et al.
- iii. US 6167534 Straathof et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (703) 305-0718. The examiner can normally be reached on M-F 7am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on 703-305-8498. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CZ
April 14, 2004



JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100